PORTAL USPTO

Subscribe (Full Service) Register (Limited Service, Free) Login

Search: The ACM Digital Library The Guide

bidirectional and reflectance and distribution and function and

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used **bidirectional** and **reflectance** and **distribution** and **function** and **motion** and **picture**

Found **63,374** of **171,143**

Sort results by: relevance

Display results: expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

Best 200 shown

Relevance scale

1 High dynamic range imaging

Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(20.22 MB) Additional Information: full citation, abstract

Current display devices can display only a limited range of contrast and colors, which is one of the main reasons that most image acquisition, processing, and display techniques use no more than eight bits per color channel. This course outlines recent advances in high-dynamic-range imaging, from capture to display, that remove this restriction, thereby enabling images to represent the color gamut and dynamic range of the original scene rather than the limited subspace imposed by current monitor ...

2 Measuring bidirectional texture reflectance with a kaleidoscope

Jefferson Y. Han, Ken Perlin

July 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(23.88 MB) Additional Information: full citation, abstract, references, citings, index terms

We describe a new technique for measuring the bidirectional texture function (BTF) of a surface that requires no mechanical movement, can measure surfaces *in situ* under arbitrary lighting conditions, and can be made small, portable and inexpensive. The enabling innovation is the use of a tapered kaleidoscope, which allows a camera to view the same surface sample simultaneously from many directions. Similarly, the surface can be simultaneously illuminated from many directions, using only a ...

Keywords: BRDF, BTF, image-based rendering, realistic image synthesis, reflection models

3 Computational Approaches to Image Understanding

Michael Brady

March 1982 **ACM Computing Surveys (CSUR)**, Volume 14 Issue 1

Publisher: ACM Press

Full text available: pdf(10.04 MB) Additional Information: full citation, references, citings, index terms

4 GPGPU: general purpose computation on graphics hardware

David Luebke, Mark Harris, Jens Krüger, Tim Purcell, Naga Govindaraju, Ian Buck, Cliff Woolley, Aaron Lefohn

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(63.03 MB) Additional Information: full citation, abstract

The graphics processor (GPU) on today's commodity video cards has evolved into an extremely powerful and flexible processor. The latest graphics architectures provide tremendous memory bandwidth and computational horsepower, with fully programmable vertex and pixel processing units that support vector operations up to full IEEE floating point precision. High level languages have emerged for graphics hardware, making this computational power accessible. Architecturally, GPUs are highly parallel s ...

5 Adaptive radiosity textures for bidirectional ray tracing

Paul S. Heckbert

September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques SIGGRAPH '90**, Volume 24 Issue 4

Publisher: ACM Press

Full text available: pdf(2.90 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a rendering method designed to provide accurate, general simulation of global illumination for realistic image synthesis. Separating surface interaction into diffuse plus specular, we compute the specular component on the fly, as in ray tracing, and store the diffuse component (the radiosity) for later-reuse, similar to a radiosity algorithm. Radiosities are stored in *adaptive radiosity textures (rexes)*[1] that record the pattern of light and shadow on every diffuse su ...

6 A reflectance model for computer graphics

Robert L. Cook, Kenneth E. Torrance

August 1981 **ACM SIGGRAPH Computer Graphics , Proceedings of the 8th annual conference on Computer graphics and interactive techniques SIGGRAPH '81**, Volume 15 Issue 3

Publisher: ACM Press

Full text available: pdf(1.09 MB) Additional Information: full citation, abstract, references, citings, index terms

This paper presents a new reflectance model for rendering computer synthesized images. The model accounts for the relative brightness of different materials and light sources in the same scene. It describes the directional distribution of the reflected light and a color shift that occurs as the reflectance changes with incidence angle. The paper presents a method for obtaining the spectral energy distribution of the light reflected from an object made of a specific real material and discuss ...

Keywords: Computer graphics, Image synthesis, Reflectance, Shading

7 A Reflectance Model for Computer Graphics

R. L. Cook, K. E. Torrance

January 1982 **ACM Transactions on Graphics (TOG)**, Volume 1 Issue 1

Publisher: ACM Press

Full text available: pdf(1.59 MB) Additional Information: full citation, references, citings, index terms

Keywords: image synthesis, reflectance

8 State of the art in Monte Carlo global illumination

Philip Dutré, Henrik Wann Jensen, Jim Arvo, Kavita Bala, Philippe Bekaert, Steve Marschner, Matt Pharr

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(5.48 MB) Additional Information: full citation, abstract

Realistic image synthesis is increasingly important in areas such as entertainment (movies, special effects and games), design, architecture and more. A common trend in all these areas is the quest for more realistic images of increasingly complex models. Monte Carlo global illumination algorithms are the only methods that can handle this complexity. Recent advances in algorithms and compute power has made Monte Carlo algorithms very practical and a natural choice for most problems.The purpose o ...

9 A framework for realistic image synthesis

Donald P. Greenberg, Kenneth E. Torrance, Peter Shirley, James Arvo, Eric Lafortune, James A. Ferwerda, Bruce Walter, Ben Trumbore, Sumanta Pattanaik, Sing-Choong Foo

August 1997 **Proceedings of the 24th annual conference on Computer graphics and interactive techniques**

Publisher: ACM Press/Addison-Wesley Publishing Co.

Full text available: pdf(28.94 MB) Additional Information: full citation, references, citings, index terms

Keywords: light reflection, perception, realistic image synthesis

10 Smooth B-spline illumination maps for bidirectional ray tracing

Richard A. Redner, Mark E. Lee, Samuel P. Uselton

October 1995 **ACM Transactions on Graphics (TOG)**, Volume 14 Issue 4

Publisher: ACM Press

Full text available: pdf(4.06 MB) Additional Information: full citation, abstract, references, citings, index terms

In this paper we introduce B-spline illumination maps and their generalizations and extensions for use in realistic image generation algorithms. The B-spline lighting functions (i.e., illumination maps) are defined as weighted probability density functions. The lighting functions can be estimated from random data and may be used in bidirectional distributed ray tracing programs as well as radiosity oriented algorithms. The use of these lighting functions in a bidirectional ray tracing syste ...

Keywords: B-splines, bidirectional ray tracing, dispersion, illumination maps, nonparametric density estimation

11 Point-based computer graphics

Marc Alexa, Markus Gross, Mark Pauly, Hanspeter Pfister, Marc Stamminger, Matthias Zwicker

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press
Full text available: pdf(8.94 MB) Additional Information: full citation, abstract

This course introduces points as a powerful and versatile graphics primitive. Speakers present their latest concepts for the acquisition, representation, modeling, processing, and rendering of point sampled geometry along with applications and research directions. We describe algorithms and discuss current problems and limitations, covering important aspects of point based graphics.

12 Seeing, hearing, and touching: putting it all together
Brian Fisher, Sidney Fels, Karon MacLean, Tamara Munzner, Ronald Rensink
August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**
Publisher: ACM Press
Full text available: pdf(20.64 MB) Additional Information: full citation

13 Acquiring the reflectance field of a human face
Paul Debevec, Tim Hawkins, Chris Tchou, Haarm-Pieter Duiker, Westley Sarokin, Mark Sagar
July 2000 **Proceedings of the 27th annual conference on Computer graphics and interactive techniques**
Publisher: ACM Press/Addison-Wesley Publishing Co.
Full text available: pdf(3.70 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a method to acquire the reflectance field of a human face and use these measurements to render the face under arbitrary changes in lighting and viewpoint. We first acquire images of the face from a small set of viewpoints under a dense sampling of incident illumination directions using a light stage. We then construct a reflectance function image for each observed image pixel from its values over the space of illumination directions. From the reflectance functions, we can directl ...

Keywords: facial animation, image-based modeling, rendering and lighting

14 Image shading taking into account relativistic effects
Meng-Chou Chang, Feipei Lai, Wei-Chao Chen
October 1996 **ACM Transactions on Graphics (TOG)**, Volume 15 Issue 4
Publisher: ACM Press
Full text available: pdf(1.90 MB) Additional Information: full citation, abstract, references, citings, index terms

This article is concerned with creating more realistic images of 3D scenes which are moving relative to the viewer at such high speeds that the propagation delay of light signals and other relativistic effects can not be neglected. Creating images of 3D scenes in relativistic motion might have important applications to science-fiction films, computer games, and virtual environments. We shall discuss the following problems: (1) how to determine the visual appearance of a rapidly moving objec ...

Keywords: Doppler effect, Lorentz transformation, aberration of light, shading, shadow, special relativity

15 Technical session 9: still and moving images: Automatically converting otograic series into video
Xian-Sheng Hua, Lie Lu, Hong-Jiang Zhang

October 2004 **Proceedings of the 12th annual ACM international conference on Multimedia**
Publisher: ACM Press
Full text available: pdf(547.80 KB) Additional Information: full citation, abstract, references, index terms

In this paper, we proposed a novel way to browse a series of otogras, which can be regarded as a system exploring the new medium between otogra and video. The scheme exploits the rich content embedded in a single otogra and otograic series. Based on studying the process of a viewer's attention variation on objects or regions of an image, a otogra can be converted into a motion clip. A system named oto2Video was developed to automatically convert a otograic series into a video b ...

Keywords: attention detection, audio segmentation, face detection, image clustering, image content analysis

16 A language for shading and lighting calculations
Pat Hanrahan, Jim Lawson
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques SIGGRAPH '90**, Volume 24 Issue 4
Publisher: ACM Press
Full text available: pdf(2.08 MB) Additional Information: full citation, abstract, references, citings, index terms

A shading language provides a means to extend the shading and lighting formulae used by a rendering system. This paper discusses the design of a new shading language based on previous work of Cook and Perlin. This language has various types of shaders for light sources and surface reflectances, point and color data types, control flow constructs that support the casting of outgoing and the integration of incident light, a clearly specified interface to the rendering system using global state var ...

17 An updated cross-indexed guide to the ray-tracing literature
L. Richard Speer
January 1992 **ACM SIGGRAPH Computer Graphics**, Volume 26 Issue 1
Publisher: ACM Press
Full text available: pdf(2.94 MB) Additional Information: full citation, index terms

18 Rendering fur with three dimensional textures
J. T. Kajiya, T. L. Kay
July 1989 **ACM SIGGRAPH Computer Graphics , Proceedings of the 16th annual conference on Computer graphics and interactive techniques SIGGRAPH '89**, Volume 23 Issue 3
Publisher: ACM Press
Full text available: pdf(1.55 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a method for rendering scenes with fine detail via an object called a *texel*, a rendering primitive inspired by volume densities mixed with anisotropic lighting models. This technique solves a long outstanding problem in image synthesis: the rendering of furry surfaces.

19 A model for anisotropic reflection
Pierre Poulin, Alain Fournier
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual**

conference on Computer graphics and interactive techniques
SIGGRAPH '90, Volume 24 Issue 4
Publisher: ACM Press

Full text available: pdf(3.24 MB) Additional Information: full citation, abstract, references, citings, index terms

A reflection and refraction model for anisotropic surfaces is introduced. The anisotropy is simulated by small cylinders (added or subtracted) distributed on the anisotropic surface. Different levels of anisotropy are achieved by varying the distance between each cylinder and/or rising the cylinders more or less from the surface. Multidirectional anisotropy is modelled by orienting groups of cylinders in different direction. The intensity of the reflected light is computed by determining the vis ...

20 Free-viewpoint video of human actors

Joel Carranza, Christian Theobalt, Marcus A. Magnor, Hans-Peter Seidel
July 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 3
Publisher: ACM Press

Full text available: pdf(5.99 MB) Additional Information: full citation, abstract, references, citings, index terms

In free-viewpoint video, the viewer can interactively choose his viewpoint in 3-D space to observe the action of a dynamic real-world scene from arbitrary perspectives. The human body and its motion plays a central role in most visual media and its structure can be exploited for robust motion estimation and efficient visualization. This paper describes a system that uses multi-view synchronized video footage of an actor's performance to estimate motion parameters and to interactively re-render t ...

Keywords: body model, human motion capture, image-based rendering, multi-video texturing

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2006 ACM, Inc.
Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat QuickTime Windows Media Player Real Player

PORTAL USPTO

Subscribe (Full Service) Register (Limited Service, Free) Login

Search: The ACM Digital Library The Guide

bidirectional and reflectance and distribution and function and

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used
bidirectional and **reflectance** and **distribution** and **function** and **motion** and **picture**

Found **63,374** of **171,143**

Sort results by: relevance

Display results: expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

Best 200 shown

Relevance scale

1 High dynamic range imaging

Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(20.22 MB) Additional Information: full citation, abstract

Current display devices can display only a limited range of contrast and colors, which is one of the main reasons that most image acquisition, processing, and display techniques use no more than eight bits per color channel. This course outlines recent advances in high-dynamic-range imaging, from capture to display, that remove this restriction, thereby enabling images to represent the color gamut and dynamic range of the original scene rather than the limited subspace imposed by current monitor ...

2 Measuring bidirectional texture reflectance with a kaleidoscope

Jefferson Y. Han, Ken Perlin

July 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(23.88 MB) Additional Information: full citation, abstract, references, citings, index terms

We describe a new technique for measuring the bidirectional texture function (BTF) of a surface that requires no mechanical movement, can measure surfaces *in situ* under arbitrary lighting conditions, and can be made small, portable and inexpensive. The enabling innovation is the use of a tapered kaleidoscope, which allows a camera to view the same surface sample simultaneously from many directions. Similarly, the surface can be simultaneously illuminated from many directions, using only a ...

Keywords: BRDF, BTF, image-based rendering, realistic image synthesis, reflection models

3 Computational Approaches to Image Understanding

Michael Brady

March 1982 **ACM Computing Surveys (CSUR)**, Volume 14 Issue 1

Publisher: ACM Press

Full text available: pdf(10.04 MB) Additional Information: full citation, references, citings, index terms

4 GPGPU: general purpose computation on graphics hardware

David Luebke, Mark Harris, Jens Krüger, Tim Purcell, Naga Govindaraju, Ian Buck, Cliff Woolley, Aaron Lefohn

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(63.03 MB) Additional Information: full citation, abstract

The graphics processor (GPU) on today's commodity video cards has evolved into an extremely powerful and flexible processor. The latest graphics architectures provide tremendous memory bandwidth and computational horsepower, with fully programmable vertex and pixel processing units that support vector operations up to full IEEE floating point precision. High level languages have emerged for graphics hardware, making this computational power accessible. Architecturally, GPUs are highly parallel s ...

5 Adaptive radiosity textures for bidirectional ray tracing

Paul S. Heckbert

September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques SIGGRAPH '90**, Volume 24 Issue 4

Publisher: ACM Press

Full text available: pdf(2.90 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a rendering method designed to provide accurate, general simulation of global illumination for realistic image synthesis. Separating surface interaction into diffuse plus specular, we compute the specular component on the fly, as in ray tracing, and store the diffuse component (the radiosity) for later-reuse, similar to a radiosity algorithm. Radiosities are stored in *adaptive radiosity textures (rexes)*[1] that record the pattern of light and shadow on every diffuse su ...

6 A reflectance model for computer graphics

Robert L. Cook, Kenneth E. Torrance

August 1981 **ACM SIGGRAPH Computer Graphics , Proceedings of the 8th annual conference on Computer graphics and interactive techniques SIGGRAPH '81**, Volume 15 Issue 3

Publisher: ACM Press

Full text available: pdf(1.09 MB) Additional Information: full citation, abstract, references, citings, index terms

This paper presents a new reflectance model for rendering computer synthesized images. The model accounts for the relative brightness of different materials and light sources in the same scene. It describes the directional distribution of the reflected light and a color shift that occurs as the reflectance changes with incidence angle. The paper presents a method for obtaining the spectral energy distribution of the light reflected from an object made of a specific real material and discuss ...

Keywords: Computer graphics, Image synthesis, Reflectance, Shading

7 A Reflectance Model for Computer Graphics

R. L. Cook, K. E. Torrance

January 1982 **ACM Transactions on Graphics (TOG)**, Volume 1 Issue 1

Publisher: ACM Press

Full text available: pdf(1.59 MB) Additional Information: full citation, references, citings, index terms

Keywords: image synthesis, reflectance

8 State of the art in Monte Carlo global illumination

Philip Dutré, Henrik Wann Jensen, Jim Arvo, Kavita Bala, Philippe Bekaert, Steve Marschner, Matt Pharr

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available: pdf(5.48 MB) Additional Information: full citation, abstract

Realistic image synthesis is increasingly important in areas such as entertainment (movies, special effects and games), design, architecture and more. A common trend in all these areas is the quest for more realistic images of increasingly complex models. Monte Carlo global illumination algorithms are the only methods that can handle this complexity. Recent advances in algorithms and compute power has made Monte Carlo algorithms very practical and a natural choice for most problems.The purpose o ...

9 A framework for realistic image synthesis

Donald P. Greenberg, Kenneth E. Torrance, Peter Shirley, James Arvo, Eric Lafortune, James A. Ferwerda, Bruce Walter, Ben Trumbore, Sumanta Pattanaik, Sing-Choong Foo

August 1997 **Proceedings of the 24th annual conference on Computer graphics and interactive techniques**

Publisher: ACM Press/Addison-Wesley Publishing Co.

Full text available: pdf(28.94 MB) Additional Information: full citation, references, citings, index terms

Keywords: light reflection, perception, realistic image synthesis

10 Smooth B-spline illumination maps for bidirectional ray tracing

Richard A. Redner, Mark E. Lee, Samuel P. Uselton

October 1995 **ACM Transactions on Graphics (TOG)**, Volume 14 Issue 4

Publisher: ACM Press

Full text available: pdf(4.06 MB) Additional Information: full citation, abstract, references, citings, index terms

In this paper we introduce B-spline illumination maps and their generalizations and extensions for use in realistic image generation algorithms. The B-spline lighting functions (i.e., illumination maps) are defined as weighted probability density functions. The lighting functions can be estimated from random data and may be used in bidirectional distributed ray tracing programs as well as radiosity oriented algorithms. The use of these lighting functions in a bidirectional ray tracing syste ...

Keywords: B-splines, bidirectional ray tracing, dispersion, illumination maps, nonparametric density estimation

11 Point-based computer graphics

Marc Alexa, Markus Gross, Mark Pauly, Hanspeter Pfister, Marc Stamminger, Matthias Zwicker

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press
Full text available: pdf(8.94 MB) Additional Information: full citation, abstract

This course introduces points as a powerful and versatile graphics primitive. Speakers present their latest concepts for the acquisition, representation, modeling, processing, and rendering of point sampled geometry along with applications and research directions. We describe algorithms and discuss current problems and limitations, covering important aspects of point based graphics.

12 Seeing, hearing, and touching: putting it all together
Brian Fisher, Sidney Fels, Karon MacLean, Tamara Munzner, Ronald Rensink
August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**
Publisher: ACM Press
Full text available: pdf(20.64 MB) Additional Information: full citation

13 Acquiring the reflectance field of a human face
Paul Debevec, Tim Hawkins, Chris Tchou, Haarm-Pieter Duiker, Westley Sarokin, Mark Sagar
July 2000 **Proceedings of the 27th annual conference on Computer graphics and interactive techniques**
Publisher: ACM Press/Addison-Wesley Publishing Co.
Full text available: pdf(3.70 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a method to acquire the reflectance field of a human face and use these measurements to render the face under arbitrary changes in lighting and viewpoint. We first acquire images of the face from a small set of viewpoints under a dense sampling of incident illumination directions using a light stage. We then construct a reflectance function image for each observed image pixel from its values over the space of illumination directions. From the reflectance functions, we can directl ...

Keywords: facial animation, image-based modeling, rendering and lighting

14 Image shading taking into account relativistic effects
Meng-Chou Chang, Feipei Lai, Wei-Chao Chen
October 1996 **ACM Transactions on Graphics (TOG)**, Volume 15 Issue 4
Publisher: ACM Press
Full text available: pdf(1.90 MB) Additional Information: full citation, abstract, references, citings, index terms

This article is concerned with creating more realistic images of 3D scenes which are moving relative to the viewer at such high speeds that the propagation delay of light signals and other relativistic effects can not be neglected. Creating images of 3D scenes in relativistic motion might have important applications to science-fiction films, computer games, and virtual environments. We shall discuss the following problems: (1) how to determine the visual appearance of a rapidly moving objec ...

Keywords: Doppler effect, Lorentz transformation, aberration of light, shading, shadow, special relativity

15 Technical session 9: still and moving images: Automatically converting otograic series into video
Xian-Sheng Hua, Lie Lu, Hong-Jiang Zhang

October 2004 **Proceedings of the 12th annual ACM international conference on Multimedia**
Publisher: ACM Press
Full text available: pdf(547.80 KB) Additional Information: full citation, abstract, references, index terms

In this paper, we proposed a novel way to browse a series of otogras, which can be regarded as a system exploring the new medium between otogra and video. The scheme exploits the rich content embedded in a single otogra and otograic series. Based on studying the process of a viewer's attention variation on objects or regions of an image, a otogra can be converted into a motion clip. A system named oto2Video was developed to automatically convert a otograic series into a video b ...

Keywords: attention detection, audio segmentation, face detection, image clustering, image content analysis

16 A language for shading and lighting calculations
Pat Hanrahan, Jim Lawson
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques SIGGRAPH '90**, Volume 24 Issue 4
Publisher: ACM Press
Full text available: pdf(2.08 MB) Additional Information: full citation, abstract, references, citings, index terms

A shading language provides a means to extend the shading and lighting formulae used by a rendering system. This paper discusses the design of a new shading language based on previous work of Cook and Perlin. This language has various types of shaders for light sources and surface reflectances, point and color data types, control flow constructs that support the casting of outgoing and the integration of incident light, a clearly specified interface to the rendering system using global state var ...

17 An updated cross-indexed guide to the ray-tracing literature
L. Richard Speer
January 1992 **ACM SIGGRAPH Computer Graphics**, Volume 26 Issue 1
Publisher: ACM Press
Full text available: pdf(2.94 MB) Additional Information: full citation, index terms

18 Rendering fur with three dimensional textures
J. T. Kajiya, T. L. Kay
July 1989 **ACM SIGGRAPH Computer Graphics , Proceedings of the 16th annual conference on Computer graphics and interactive techniques SIGGRAPH '89**, Volume 23 Issue 3
Publisher: ACM Press
Full text available: pdf(1.55 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a method for rendering scenes with fine detail via an object called a *texel*, a rendering primitive inspired by volume densities mixed with anisotropic lighting models. This technique solves a long outstanding problem in image synthesis: the rendering of furry surfaces.

19 A model for anisotropic reflection
Pierre Poulin, Alain Fournier
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual**

conference on Computer graphics and interactive techniques SIGGRAPH '90, Volume 24 Issue 4

Publisher: ACM Press

Full text available: pdf(3.24 MB) Additional Information: full citation, abstract, references, citings, index terms

A reflection and refraction model for anisotropic surfaces is introduced. The anisotropy is simulated by small cylinders (added or subtracted) distributed on the anisotropic surface. Different levels of anisotropy are achieved by varying the distance between each cylinder and/or rising the cylinders more or less from the surface. Multidirectional anisotropy is modelled by orienting groups of cylinders in different direction. The intensity of the reflected light is computed by determining the vis ...

20 Free-viewpoint video of human actors

Joel Carranza, Christian Theobalt, Marcus A. Magnor, Hans-Peter Seidel

July 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(5.99 MB) Additional Information: full citation, abstract, references, citings, index terms

In free-viewpoint video, the viewer can interactively choose his viewpoint in 3-D space to observe the action of a dynamic real-world scene from arbitrary perspectives. The human body and its motion plays a central role in most visual media and its structure can be exploited for robust motion estimation and efficient visualization. This paper describes a system that uses multi-view synchronized video footage of an actor's performance to estimate motion parameters and to interactively re-render t ...

Keywords: body model, human motion capture, image-based rendering, multi-video texturing

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2006 ACM, Inc.
Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat QuickTime Windows Media Player Real Player

[PDF] absolute **reflectance**-factor values for **bidirectional reflectance ...**
File Format: PDF/Adobe Acrobat
is the **bidirectional**. **reflectance-distribution function**, abbreviated as ... **Motion** is achieved by computer control of precision. stepper motors. ...
ao.osa.org/ViewMedia.cfm?id=40870&seq=0 - Similar pages

[PDF] Monte Carlo Methods and the Challenge of Photo-Realism in Computer ...
File Format: PDF/Adobe Acrobat - View as HTML
cal BRDF (**bidirectional reflectance distribution function**). ... which increases with speed of object **motion**. Both images are full path traced solutions ...
www.cs.tcd.ie/publications/ tech-reports/reports.98/TCD-CS-1998-14.pdf - Similar pages